



Air Contaminants Benchmarks (ACB) List
Update January 2017

Purpose

- Provide an overview of:
 - The new ACB List
 - Requirements for assessing the potential for adverse effects under O.Reg. 1/17
 - Ministry plans to:
 - Update the ACB List
 - Provide support for toxicological assessments

ACB List

- Posted on the ministry website and on the Environmental Registry as an information notice on January 4, 2017
- Consolidates and replaces separate existing lists of benchmarks (standards, guidelines and jurisdictional screening levels)
- Includes benchmarks for over 1600 contaminants
- Referenced in the new Air Emissions EASR Regulation – O.Reg. 1/17

Link to ACB list and walk through

<https://www.ontario.ca/page/air-contaminants-benchmarks-list-standards-guidelines-and-screening-levels-assessing-point>

O. Reg. 1/17: Contaminant with a B1 Value

- Benchmark 1 (B1) Values: Standards and guideline values
- *If the contaminant is identified in the ACB list as belonging to the category “Benchmark 1”, O. Reg. 1/17 requires that the concentration be at or below the concentration for each specified averaging period set out for the contaminant in that document*

O. Reg. 1/17: Contaminant with a B2 Value

- Benchmark 2 (B2) Values: Screening levels
- *If the contaminant is identified in the ACB list as belonging to the category “Benchmark 2”, O.Reg. 1/17 states that:*
 - *A. the concentration must be at or below the concentration for each specified averaging period set out for the contaminant in that document, or*
 - *B. if the concentration is above the concentration for a specified averaging period set out for the contaminant in that document, the concentration must not be likely to cause an adverse effect for that averaging period.*

O. Reg. 1/17: Contaminant with No Benchmark

- *O. Reg. 1/17 states that, for a contaminant with no benchmark set out in the ACB list, the concentration must not be likely to cause an adverse effect for a specified averaging period that relates to the adverse effect*

Toxicological Assessment

- Carried out to assess the potential for a contaminant in air to cause an adverse effect
- Generally includes consideration of:
 - Physical chemical properties
 - Effects after acute exposure
 - Effects after chronic exposure
 - Jurisdictional limits
 - Site-specific conditions, if relevant (e.g., mobile source)

Ministry Support for Toxicological Assessments

- Early 2017:
 - Share materials used by the ministry toxicologists
 - Provide training sessions on the materials
 - Overview for LEPs
 - Details for toxicologists
- Late 2017:
 - Guidance

Updates to the ACB List

- In 2016 the ministry notified stakeholders of plans to introduce new/updated screening levels - largely as updates to the JSL List.
- Stakeholders indicated support for the new/updated screening levels but raised questions over the timing of the transition to more stringent screening levels (i.e., ~450 contaminants will have a more stringent JSL).
- In response the ministry will undertake additional consultation regarding the transition timing before updating the ACB List.
- We anticipate consulting in early 2017.

Comparison of Current and Proposed Benchmarks

	Number of Contaminants with Benchmarks – Current	Number of contaminants anticipated with introduction of new/updated screening levels
Standards	~130	~130
Guideline values	~200	~200
Screening levels:		
Jurisdictional (JSL)	~1300	~4500
Ministry derived screening levels	~19	~150
Total	~1650	~5000

Contact Info

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